Peace River Area Monitoring Program (PRAMP) Committee

Technical Working Group Meeting

November 10, 2022

Zoom Video Conference

# Meeting Notes

Attendees:

|  |  |  |  |
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| **Name** | **Sector Group** | **Organization** | **Participation** |
| Doug Dallyn | Public |  | Director |
| Elvis Thomas | GOV | Woodland Cree | Director |
| Sarah Stockley | Public |  | Director |
| Carolyn Pfau | GOV | AER | Guest |
| Madhan Selvaraj | GOV | AEP | Guest |
| Laurie Cheperdak | GOV | Alberta Health | Guest |
| Karla Reesor |  | Executive Director |  |
| Mike Bisaga |  | Technical Program Manager |  |
| Lily Lin |  | Technical Program Manager |  |
| Brenda Barber |  | Office Manager |  |
|  |  |  |  |
|  |  |  |  |

Regrets:

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| --- | --- | --- | --- |
| **Name** | **Sector Group** | **Organization** | **Participation** |
| Jason Javos | GOV | Northern Sunrise County | Director |
| Arlene Hogg | Ind | CNRL | Director |
| Carolyn Lewis  | Industry | Baytex Energy | Director |
| Garrett Tomlinson | Gov | Metis Nation, Region 6 | Director |
| Andy Trudeau | GOV | MD Smoky River | Director |
| Krista Park | GOV | AHS | Director |
| Long Fu | GOV | AEP | Guest |
| Mike Brown | GOV | AER | Guest |
| Dwayne Stepaniuk |  | Field Technician |  |

***These notes are provided as a summary of discussions of the PRAMP Technical Working Group. The views and ideas noted do not necessarily reflect the perspective of each Committee member. Decisions are taken by consensus.***

* 1. **Introductions**

We do not have quorum for this meeting today as we do not have an Industry representative. Decisions will be tabled to the next meeting.

**1.2 Approve Agenda**

No additions to the Agenda

**1.3 Approval of Minutes**

*Minutes were provided prior to the meeting.*

**Minutes approval will be carried forward to the next meeting**

**2 Standing Business**

**2.1 Administration and Planning**

OSM Planning Process

*2023/24 OSM Work Plan Scoping Document was provided prior to the meeting*.

* The workplan contributions have been submitted; it is a status quo plan with recognition that any changes to the network based on the network assessment could potentially change the scope of work.
* We included an assumption of a 7% increase due to inflation.

**2.2 Continuous Monitoring Program**

Dashboard Reports

*The dashboard reports for August and September were posted on the Members Portal.*

More detailed field operational notes can be found in the monthly technical reports on the PRAMP website ([link here](https://prampairshed.ca/wp-content/uploads/2022/07/PRAMP-Monthly-Ambient-Air-Quality-Monitoring-Report-for-June-2022.pdf)).

* In August
	+ 986 – SO2 and HC analyzer did not meet 90% uptime; SO2 failed due to a firmware crash, and HC failed due to a sample pump failure.
	+ 842 –the HC analyzer was replaced for maintenance
	+ No major operational issues at Reno, PRC or AQHI stations
	+ No canister events recorded
* In September
	+ at 986 all analyzers met 90% uptime except the precipitation gauge due to a loose connection with the datalogger
	+ At 842 the HC analyzer was swapped – data will be analyzed for validity
	+ 22 1-hour and 3 24-hour PM2.5 exceedances were recorded and were caused by smoke being transported into the area from wildfires burning in BC.

Reno Deployment

* Station has been deployed (shelter is in place).
* Next week Bureau Veritas will start decommissioning the existing Reno station and recommissioning at the new site. Anticipating there will be downtime during the transition.

**Action item: Mike and Lily will be working with Bureau Veritas and will provide a special notification to the daily reports when analyzers are going off line.**

**3.0 New Business**

Annual Data Review

* Mike provided a summary of the 2021 Annual Data Review.
* **Action item: Mike will send out the report for review by the TWG and will provide a date for comments.**

Network Assessment

* Assessment was divided into three priority areas
* Priority 1 Perspective of performance of the network to detect changes in AQ after the implementation of Directive 84
	+ Remove stations – no
	+ Eliminate VOC/NMHC – no
	+ Eliminate SO2 or TRS – no
	+ Eliminate meteorology – no
	+ Eliminate THC or CH4 – yes, possible
	+ Move stations – not unless PRAMP wants to move to a more dense emission area
	+ Change technology
		- passive or low-cost SO2 – possible
		- Passive or gas-sensitive semiconductor VOC – possible
		- Priority 2 Recommendations following the review of adding PRC and Mercer stations to the network
			* Remove new stations – no
			* Eliminate SO2 – possibly
			* Eliminate TRS – No
			* Eliminate meteorology – no
			* Eliminate either THC or CH4 at PRC – yes, possible
			* Eliminate PM monitoring at Mercer Town – no
			* Move stations – no
			* Change passive network at PRC – eliminate
			* The Board will decide which changes from the Network Assessment they want to investigate further; any that they don’t will not have resources used to investigate changes that will not be implemented.
			* Priority 3 Recommendations from consideration of spatial gaps in monitoring and the potential for emerging technology

Monitoring deficient areas – monitoring is in areas where people live

Potential for transboundary pollution – no

Monitoring gaps – Mercer does not monitor SO2, THC, NMHC, CH4, PM2.5, CO, NOX (not approval requirement)

Potential new technologies – yes for forest fire monitoring

Implementation Priorities

Initiate elimination of the PRC Passive Network

AER requirements for EPEA approval

Investigate passive optimization in network

Establish a plan to calibrate the Purple Air sensors currently deployed in the network (we will not likely do this as both AEAP and ECCC are doing their own programs)

Investigate low-cost sensor packages that can be programmed to calculate the AQHI (we will not like do this as AEAP is currently doing a pilot project)

Investigate the elimination of THC instrument from stations – not possible

Review potential to eliminate threshold-triggered VOC canister sampling –

Review of low-cost sensors -

Overall recommendations

Remove Stations – no

New stations in monitoring deficient areas – not with current technology but possibly with low cost sensors

Could redeploy PRC passives although it is not expected that SO2 and H2S are issues in locations currently not monitored

Move stations – not unless PRAMP wishes to monitor in Walrus

Reduce parameters – no but possible to eliminate either THC or CH4

Change of technology – use of small sensors is possible and way to address a number of recommendations and opportunities throughout the report.

Action Item: Mike will provide a matrix with the recommendations for review and comment by the TWG.

**Adjournment**

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| **Action Item Number** | **Action Item Description** | **Status** |
| **New Action Items** |
| **2022-11-10** | **Mike and Lily will be working with Bureau Veritas to decommission and recommission the Reno Station and will provide a special notification to the daily reports when analyzers are going offline.** |  |
| **2022-11-10** | **Mike will send out the Annual Data Report for review by the TWG and will provide a date for comment.** |  |
| **2022-11-10** | **Mike will provide a matrix with the recommendations from the network assessment for review and comment by the TWG.** |  |
| **Completed Action Items** |
| 2021-05-01 | Mike and Lily will review and revise the AQHI re-deployment matrix over the next year |  |
| 2021-04-03 | Madhan will pull the emissions and modelling information and provide it to Mike. |  |
| 2021-04-01 | Mike and Lily will change the order of stations on the dashboard (move the PRC station to the end as we do not have data) |  |
| 2021-04-02 | Mike will update the map with the industry facilities |  |
| 2021-04-04 | Mike will walk Madhan through the proposed site to ensure that AEP doesn’t have any issues with it. |  |
| 2020-12-01 | Karla will develop a letter to send to our partners and stakeholders about the criteria on setting up the portable AQHI monitor |  |
| 2020-12-02 | Karla will provide Gaylene Whitehead with the membership form. |  |
| 2020-09-01 | Mike and Lily will get a quote for the removal of the trees at the current Reno monitoring site, and review all other costs; including power and road upgrade the site |  |
| 2020-09-02 | Mike will ask the landowner if it would be possible to site the new Reno station across the road from the location originally looked at. |  |
| 2019-12-01 | Mike and Lily will develop a proposal for a co-deployment with objective to address siting issues at Reno. Timeline is end of January |  |
| 2019-12-02 | Mike will follow up with Elvis about the tree issue at Woodland Cree |  |
| 2019-05-01 | Mike will talk to Corinna Williams to see if the County will willing to do dust control at preferred AQHI trailer site at Codette Lake. |  |
| 2019-05-02 | Karla will speak to CNRL to see what they wish to do with the power meter at 986B. |  |
| 2019-01-01 | Mike will follow up with the other property owners (where stations are located) and discuss the option of payment for land rental.  |  |
| 2019-01-01 | Lily and Mike will explore the cost of adding precipitation readings (rain gauges) to the entire network.  |  |
| 2019-01-01 | Mike and Lily will prepare a one page document on recommended site for the AQHI trailer for Board, members and municipalities. |  |
| 2019-01-01 | Mike and Karla will look into the information to be provided to AER on background canisters. |  |
| 2018-11-01 | **PRAMP** staff will continue to work with legal counsel to develop a new contract with Maxxam going forward |  |
| 2018-11-02 | **Mike and Lily** to pursue option 1 and move on to second if it doesn’t work out for relocation of station 986 |  |
| 2018-11-03 | **Lily and Mike** will apply the matrix to the sites identified within the TWG for the siting of the portable monitor |  |
| 2018-11-04 | **Lily** will send the siting requirement document for the portable monitor to Elvis Thomas |  |
| 2018-11-05 | **Krista** will request a comprehensive document of the canister sampling program including the review of each canister with Laurie Cheperdak |  |
| 2018-11-06 | **Brenda** will provide Laurie Cheperdak’s email address to TWG |  |
| 2018-06-01 | Mike and Lily will make a recommendation on a methane-based trigger for the canister program. The same trigger will be set at all the stations. |  |
| 2018-06-02 | Mike and Lily will review the relationship between TRS and NHMC concentrations and report back to the TWG at the next meeting. |  |
| 2018-06-02 | Mike and Lily will research the additional cost to continuously monitor VOCs |  |
| 2018-06-03 | **Maxxam** will put a disclaimer that the data is raw on the dashboards going forward |  |
| 2018-06-04 | The **TWG** will review the Portable Station Locating Procedure prior to the September meeting |  |
| 2018-03-01 | **Mike** will talk to **Bob Myrick** about adding the government logo to the signs. |  |
| 2018-03-02 | **Karla** and **Brenda** will research a menu option phone number |  |
| 2018-03-03 | **Mike** will review the history of data and based on conversations today will come back with a recommendation. |  |
| 2018-01-05 | **Mike** will come back to the TWG with recommendations on reasonable trigger levels |  |
| 2018-01-01 | **Maxxam** will trigger the canisters that are set to expire as a test. |  |
| 2018-01-02 | **Mike** will resend the sensor drawings to Reid |  |
| 2018-01-03 | **Mike** will do research on signs and/or wraps for the stations |  |
| 2018-01-04 | **Mike** will look into a second trigger on canisters related to hydro-carbons |  |
| 2017-11-01 | **Mike** will add the approval process to the TORs. Will send with the draft minutes for approval. |  |
| 2017-11-02 | **Mike** will make a recommendation to the Board on the procedures for the TWG to report to the Board |  |
| 2017-11-03 | **Lily** will ask Maxxam to provide a system design including the location of the new sensor. The **TWG** will approve via email before Maxxam does the installation. |  |